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ABSTRACT

This paper examines issues in rural education related to aims, curriculum, and finance. It questions the notion that educational restructuring is necessary for the purpose of improving economic competitiveness. Wigginton, a rural educator, proposes that the aims of education should be: (1) to provide a firm grounding in the basic skills; (2) to develop an understanding of how the world works; (3) to cultivate an appreciation for the arts; and (4) to foster a determination to make a contribution. Another rural educator, Keizer, feels schools should do more than mirror and foreshadow the real world. Rural education should help students to construct meaning out of and in their lives. In terms of curriculum and instruction, rural schools tend to be small-scale, enabling them to be more responsive to students. Research shows a small but consistent advantage of small schools over large schools in terms of achievement when the effect of socioeconomic status is controlled. Although the use of technology is often advocated for rural school improvement, technology as a tool to achieve efficiency may not be so attractive; it may do more to refine the "one best system" model than to help responsive teaching. American school finance typically focuses on efficiency rather than effectiveness. There is a need for better funded schools. Rather than trying ineffectively to provide social services in schools, the aim should be to guarantee that every child will learn in school. (KS)

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Critical Issues in Rural Education, Writ Large: Aims, Curriculum and Instruction, and School Finance

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Critical Issues in Rural Education, Writ Large: Aims, Curriculum and Instruction, and School Finance

Three issues are of overwhelming importance in rural education, in my view: (1) the aims of rural education; (2) instruction and curriculum; and (3) rural school finance. These issues are related to one another, and I will deal with each in turn.

The aims of rural education. The most important issue, and the least discussed these days is the first. American business is pushing an aim that needs to be excamined a lot more closely than it has been: restoring America's "economic competitiveness."

What does business mean? Nobody is asking the question. The reason we don't ask is simple. We educators are a harried lot in America. The schools are the social institution in America. We don't have family support systems the equal of European nations; we don't have a good system of scholarships to our colleges and universities (students have, in the last decade, as you probably know if you have a youngster in college, assumed a large burden in financing their own higher education); and, as you all know, public schools provide--or, it seems, are expected to provide--a wide array of social services: food, clothing, a veritable--and necessary--war on substance abuse, not to mention sex education, drivers' education, and vocational training.

However, when the most powerful group in America (that is, business) tells us we are important and they want to help, who are we to say, "hold on a minute." We'd have to be crazy, right? Actually, I think we would have to be crazy. And there are signs that business people want to understand educational issues better. For example, the National Alliance of Business has

just published A Blueprint for Business on Restructuring Education. That publication stresses that educational improvement is a long-term process, and that business people must learn more about teaching in particular and about the operation of the educational enterprise in general. Of course, what was most curious about that document was the rhetorical prominence it accorded social issues--such as support for families--but how little space the document devoted to how business might help address those problems. You can be sure it said nothing about the minimum wage, for example. And it was long on how business might help educators apply the lessons that corporate America has learned about restructuring industry over the past decade.

The call to "restore" America's economic competitiveness is hardly new. It's a theme that surfaces when business feels an international crunch. Larry Cuban quotes the National Association of Manufacturers as follows (as you listen, try to guess the year):

> We should act at once because of the stress of foreign competition. We are twenty-five years behind most of the nations that we recognize as competitors. We must come nearer to the level of international competition. As every establishment must have a first-class mechanical equipment and management, so must it have in its workmen skill equal to that of competitors, domestic and foreign.... It is their misfortune that [American workers] have not been given by this country that measure of technical instruction that is their due.

The year was 1905. Now, as then, schools are targets for "restructuring." What everyone has in mind, of course, is a national wave of restructuring. No

one is looking too closely at the realities below the national (or "macro") level.

What does restoring America's national economic competitiveness imply as an educational aim for rural areas and rural schools? Should we speak of restoring rural America's economic competitiveness? The power of business and finance is hardly a rural tradition.

Nonetheless, rural America, like rural students, is a vaunted "national resource." The proof of the pudding, I suppose, might include the continual outmigration of rural students; or rurally-produced food, fiber, and mineral wealth; or the in-migration of urban waste and garbage, foot-loose factories in search of cheap, and, more sinister still, the privately-operated prisons looking for rural homes. Very few people in rural America want to continue eating that pudding, however.

The story is virtually the same in the Centennial states in the rural West (see an article in the October 9th Newseek) and in the rural South (see Tom Lyson's Two Sides to the Sunbelt).

In this context, take a look at the aims that are being implicitly and (sometimes) explicitly proposed for rural schools. With the exception of the voices of some literate rural teachers (like Keizer and Wigginton), what's being proposed now is more appropriate practical training, just as it was in 1905.

Now, as then, rural schools are viewed as targets for "restructuring"; now, as then, rural schools are encouraged to provide more practical training to rural youth. Unlike their predecessors, however, some contemporary reformers call for training entrepreneurs instead of employees, and they recommend training relevant to services instead of farming and manufacturing.

The practical intent of contemporary reformers, however, is nonetheless identical to that of earlier reformers: improved economic performance through improved education, especially better occupational or technical training.

Several astute observers with an international interest point to a trend in national systems of schooling that makes it difficult for educators--on a global scale--to progress beyond the emphasis on practical training. Before I did a deeper hole for myself than I need, let me say that I believe in the value of what used to be called manual training for every student, including very academically able students. I didn't learn plumbing, carpentry, or crop and animal production in school. But having learned them the hard way (dealing with cattle that got through fences and pumps that wouldn't draw water), I learned lessons of self-reliance that I continue to value and that continue to serve me well. Now, self-reliance is transferable skill, but I'm still no carpenter or plumber. But, then, knowing a little about everything really is a rural tradition.

So--with that much said, the trend observed by those with an eye to the evolution of national systems of schooling is what they call "vocationalism." It's not, let me repeat, a term synonymous with "vocational education." It encompasses the whole educational enterprise from pre-school through doctoral programs. In societies that seek to "modernize"--including our own, which is engaged in perpetual modernization and economic restructuring--the work place becomes increasingly differentiated. That differentiation becomes a model for schooling, naturally enough. Schools become, as Joel Spring phrases it, "sorting machines." The two trends--work place differentiation and educational differentiation--reinforce each other. The result seems to be greater variability in jobs, in training, programs, and in salaries.

For a time, economists believed that more training, more education, and wider job options would lead to a more open, more equal society. What they have found recently, however, is that all of this differention increases variability in incomes. In a practical, common-sense way, that finding means that the interaction between work place and educational differentiation tends, over time, to make our society less equal. There is a dilemma here, for sure: because the post-industrial world is becoming more differentiated, we need more generalists. At the same time, the operation of the marketplace and of our schools (which reflect and reinforce the marketplace differentiation), we produce specialists. Some of us specialize as financial analysts, and increasing numbers of us specialize as what Jaime Escalante (in the wonderful film Stand and Deliver) calls "chicken fryers." Business, by the way, is using that film--which features students who are potential chicken fryers--to promote the dignity of teaching, and quite appropriately.

Good grief! What can rural educators do to confront that mess (assuming for a moment that, as egalitarian Americans, we might not be happy with such a state of affairs)? Let me return to my five-year-old's theme of "meaning" and to the notions put forward by Keizer and Wigginton.

Wigginton (in Sometimes a Shining Moment) puts forward four simple aims for education:

- a firm grounding in the basic skills,
- understanding how the world works,
- an appreciation for the arts, and
- a determination to make a contribution.

Note that these sorts of aims are intended to produce generalists. These are overarching aims, simply stated, and there are a million ways to reflect them in practice. We don't, however, yet practice all of them very well, by any means--especially the last three (teaching students to understand how the world works, developing in students an appreciation for the arts, and developing in students a determination to make a contribution).

Because of the qualities of "meaning" these aims embody, not one of the million ways to implement them is easy or fool-proof. Implementing them is based on some critical assumptions. They require, first of all, very active, experienced, and committed teachers who can avoid the burnout that seems to defeat many of our colleagues. Avoiding burnout is, of course, not simply a personal battle against the minutiae that dominate teaching, but it is a problem that organizational development can help to address. It's not cheap.

Nonetheless, they are a nice foil to the practical aims of what--for want of a better word--might be called vocationalism. The last aim--a determination to make a contribution--is, however, the aim that might include, in a context of meaning, preparation for the world of the working adult.

Keizer's presentation is a bit more diffuse, a bit more anecdotal, and a bit less practical than Wigginton's. Perhaps that's because Keizer is also a preacher. Spiritual themes figure notably, but unobtrusively in his discussion of rural schools. But this is what he has to say about schools and practical training in general:

> For consider, if the real world is as full of injustice, waste, and woe as it appears to be, and school has no other purpose than to prepare young people to man and woman the machinery of the real world, then

> schools are pernicious institutions. They serve to perpetuate rather than remedy evils. We would do as well to burn as to maintain a school that does no more than mirror and foreshadow the real world.

Keizer's and Wigginton's views of the aims of education pit education as a cultural and ethical act against the national view of education as an economic end directed at cultivating a more internationally "competitive" business posture.

The view is especially relevant to rural education because of the role of rural areas in the national economy and in the national culture, though I suspect both Wigginton and Keizer might dispute this observation. Wigginton, in particular, is aiming to articulate a sense of education that can be generalized to all schools. Yet I think that certain indigenous rural traditions might support this sort of education, as opposed to the one we now practice by aping urban and industrial education.

Let me make this point a little more clearly. First, the global role of American (and other Western nations') economic activity in the last four decades is <u>not</u> universally acclaimed by the developing countries of the world. That's an understatement. Second, many observers of the plight of rural areas in <u>this</u> country are beginning to see that the national economy operates to the detriment of rural areas. Though this is hardly a new observation, it is now a more widely repeated one because the contradictions between rural and urban situations are becoming more acute. A few observers even believe that--because of declining political representation--the plight of rural areas should not even concern policymakers at the national level. Some economists even argue that the seat of economic development--and they site the failure of

third-world development initiatives--is naturally urban. Recent studies of rural economies tend to confirm the observation, with most new rural manufacturing, especially high-tech manufacturing, taking place in nonmetropolitan areas that are suspiciously close to metropolitan areas.

In terms of culture and ethics, however, rural areas figure prominently in the national imagination. The natural environment, for example, is a major ethical concern of our age. It surrounds us all, even those of us who spend our days hidden away from the sky and earth in urban offices.

Those of us who live or have lived in rural areas value our "sentimental" attachment to the natural environment and the quality of life that the country offers. (I don't--by "quality of life"--mean good or bad, but what it means and how it feels to act in step with the weather, the seasons, with natural disasters and natural windfalls. And by "sentimental" I don't mean soft-headed and vague, but rather attached warmly and self-consciously to <u>particular</u> places).

Perhaps I'm romanticizing my years in the country, but my neighbors in rural West Virginia (which to many people unfamiliar with it, is imagined to be a dreadful place) were among the most original, most intelligent, and most caring people I've ever met.

Who, besides such people, are better equipped to speak to the issue of the natural environment as an ethical and cultural issue? Rural people won't, however, be able to speak to such issues without an education that prepares them for such a role. That's why clear, alternative aims are so important for rural education. A purely practical education does not equip anyone to address such issues. My neighbors practiced a rural ethic and lived

a rural culture, but they had no formal means of articulating the ideals they most often actually lived.

And this is just one example--both Wigginton's and Keizer's works are filled with others. The point of all the aims proposed by Wigginton lead in the direction of helping students to construct meaning out of and in their lives--as well as in all our lives. That, I take it, is what he means by "a determination to make a contribution." Such an education is more than "higher-level thinking skills"--which are receiving so much attention lately--because it includes a devotion to values and affect, as well as to practical knowledge and making a place for oneself in an increasingly uncertain world.

This view of education may ultimately pit the ideas of "education as art" against the ideas of "education as science (or technology)." Both views are useful, and I don't want to advocate one over the other. But I do observe that education as art can be approached only by the sorts of teachers who are capable of appreciating and implementing Wigginton's aims. We assume that education as science or technology is more "transportable," more easily replicated than education as art. Our record of achievement, however--and I'm speaking of the underclass--suggests that education as science and technology has not yet addressed the education of that group very well.

Can there be much doubt that students thus prepared <u>will</u> contribute substantially to the well-being of their communities? I don't think so. Even business is today clammoring more loudly than in 1905 for the sort of generalists that rural living has always produced: people prepared to think and to act in accord with a larger vision of life.

Obviously, it's much easier to nurture basic skills than to nurture students' construction of meaning. But responding to this challenge is what

education is--or ought to be--all about. There is nothing wrong with basic skills so long as our vision of them puts them to good use. They are minimum competencies, and that's all.

I've been trying to write about these issues, and I've gotten some interesting critiques recently. One reviewer complained that the aims proposed by Wigginton are really aims for secondary education. The comment misses the point that education is development--it's going somewhere. If we don't have such aims in mind as elementary teachers, how can we lead young students in the right direction? Jerome Bruner's comment about teaching anything to a student of <u>any age</u> in an intellectually defensible way is a key point here. Bruner supports the idea of the so-called spiral curriculum. It's an old idea, but it encompasses the notion of development--of building on prior learning <u>toward</u> some larger scope of learning.

I'm not certain what more specific goals of elementary education might be that are <u>not</u> included in Wigginton's four overarching aims. Perhaps they are things like developing motor skills, or a sense of self-worth and confidence, or habits of orderliness, punctuality, and social behavior appropriate to 8 years of schooling. These goals, however, are most appropriate if they support life-long learning or "self-actualization"--you know, Maslow's highest need. These goals, then, are really just as appropriate for secondary education as for primary education. I'd like to close the discussion of aims with another quote. Michael Katz, in his book <u>Class, Bureaucracy, and Schools</u>, issued the following warning:

> Educational reformers should begin to distinguish between what formal schooling can and cannot do. They must separate the teaching of skill

> from the teaching of attitudes. In actual fact, it is of course impossible to separate the two; attitudes adhere in any form of practice. But there is a vast difference between leaving the formation of attitudes untended and making them the object of education.

Katz's warning applies to how the aims of education ought to be implemented. "Appreciation of the arts" and "determination to make a contribution," as they are nurtured in schools, should, according to this warning, arise out of a sense of mastery of the skills students learn. In fact, they cannot be built simply on feeling. Appreciation and determination must be grounded on knowledge, not the ignorance of undisciplined feeling.

Curriculum and instruction in rural schools. These observations lead to the second issue: curriculum and instruction in rural schools. Rural schools, of course, tend to be small-scale operations. Small-scale is increasingly acknowledged to have some inherent advantages. These advantages provide many rural schools some opportunities to practice just the kind of education that Wigginton and Keizer strive not only to practice in their own rural schools, but to articulate for the rest of us.

"Small is beautiful" is a byword among those of my generation who--however ironically or however naively---sought a better life in the country. My cohort was concerned with quality, not with quantity. Those of us stuck it out in rural areas did find the quality we were seeking, though it turned out to be a lot more complicated and a lot more hard work than some of us at first imagined. Country life has its liabilities too.

The early literature on rural education considered those liabilities at length. In the early decades of the century virtually no one saw the strengths of small-scale that recent writers about rural education seem to have discovered.

How could they? America was building an unprecedented industrial (and largely urban) culture. At that time, urban life was an attractive alternative to the rigors of rural life. The world has changed a lot since then. So have rural schools. They are quite different from what they were in 1900. Though many liabilities persist, at least we can say that most rural schools have not developed the new liabilities that have increasingly come to plague central-city urban schools since the 1950s.

Let's start, however, with the virtues of small-scale. Many of you, no doubt, are veterans of the era of James Conant. Conant, you will recall, published The American High School Today in 1959. His message was heard loud and clear across the nation: many high schools were too small to put a man on the moon. And actually, by 1969--when we did put one there--high schools were probably not a whole lot larger, on average.

I'm being too facetious to do justice to Conant. His main point was that very small high schools could not offer enough advanced courses to develop the talents of the most academically able of their various student bodies.

The supply of that kind of academically-oriented talent is most often delivered ready-made to the schools by what social psychologists have called "modern" family cultures--those that value learning, achievement, and mobility. The supply of such talent varies widely; in particular "modernity" is thought to be a feature of urban existence. And in many rural areas that kind of family culture is--understandably--not so common: academic achievement won't get the cows milked, in the words reported by one recent observer.

In fact, some observers--for example, Alan Peshkin, who has published some interesting ethnographies of rural schools--have asked what is the point of providing an array of advanced courses in places where so few students would be interested in taking them.

It's not so simple or heartless a remark as it seems. I think it has more to do with school size than with curriculum directly. Let me explain. In Scarsdale--perhaps--they just might need courses in Roman and Greek literature, Chinese, differential equations, and organic chemistry. I say

"perhaps" because Scarsdale--and almost any school--would do better to send the kids who need those things on to college early. At least that's what my colleagues and I have argued for in our textbooks on very able students. In any case, it might be legitimately argued that only a high school with, say, 1500 students can offer a curriculum that includes stuff like Chinese and organic chemistry.

Just because large high schools can offer such a curriculum, however, doesn't mean they typically offer it. Mostly, schools that large don't, according to David Monk. In fact, Monk tells us that there is little advantage in terms of curriculum for any high school larger than 400 students. Oddly enough, that's the size Conant recommended as the minimum high school size in 1959. I wonder, in passing, if this isn't another example of the tendency to make minimum expectations into maximums--akin to how minimum competency testing becomes a set of maximum expectations for some students. In this case, however, the result may be fortunate--on the principle that small is beautiful.

We know something Conant, however, didn't know in 1959: big high schools have many disadvantages. Recent research shows how this works. Much of the research on school size is a bit contradictory--like the research on most educational methods. Actually, it's a little better than neutral in the case of small size. Overall, the early research shows a small but consistent advantage in terms of achievement, with the effect of socioeconomic status controlled.

It's interesting to note that in the crunch for consolidation that swept the country after Conant's report, and even earlier (and for that matter, even now), those studies that focused on achievement usually did not recommend

increased size. When such studies did recommend a particular size, it was about half what was recommended by studies that focused on the presumed curricular advantages of large size.

A 1988 study in the Southwest, however, has given us something more in terms of the effect of small school size. The authors of that study--Friedkin and Neccochea--speculated that the effects of small school or district size might be mediated by a community's socioeconomic status. Incredibly, none of the previous studies had considered that possibility--partly because the notion of interaction effects had not yet been too clearly elaborated.

In any case, the results of this study provide strong support for the hypothesis of an interaction between school or district size and community socioeconomic status. Small schools in poor communities produce large positive effects, whereas large schools in poor communities produce large negative effects, according to this study. At the other end of the socioeconomic continuum--that is, in affluent communities--large schools produce moderate positive effects.

The study was done with a California data set, so more work needs to be carried out if this result is to be generalized nationally. But the initial hypothesis and the initial findings seem promising.

I'd like to share corroborating information from AEL's databases on schools in Kentucky, Tennessee, Virginia, and West Viginia. I've summarized the relevant data on a series of transparencies. These may help you see some the relationships between achievement and district type, school size, and socioeconomic status.

To make meaningful comparisons aomng these different kinds variables, the graphs use "z-scores," also known as "standardized scores." To refresh

your memory, z-scores tell us how particular scores or a group of scores compares to the average score. A negative z-score indicates below average, and a positive z-score indicates above average. A z-score of -1 is one standard deviation below the mean, and a z-score of +1 is one standard deviation above the mean. These transparencies are included in your packet, so you can review them later.

The first transparency--

-- type of district: Latin Square, 2-dimensions being size (large vs small) and locale (rural vs urban)

-- yields 4 types of district: L/U, S/U, L/R, S/R

-- sidebars give actual stats for type of district in all 4 states

-- WV has only 1 S/U district--otherwise each type of district is represented in each state by from 10 to 58 cases.

The second transparency--

-- 8th/9th grade achievement by district type.

-- in general, urban districts do better than rural districts (if you compared incomes for these districts, you'd see they are more affluent; comparison biased therefore)

-- but compare achievement of large and small rural districts

-- KY, WV, and VA cases suggest small rural districts do better than large rural districts. Why? Is this, too an artifact of SES?

Third transparency--

-- KY and WV achievement and SES background variables

-- In KY both L/R and S/R districts below mean on income and property values, though small districts are a little more affluent

-- In WV, however, the small rural districts are clearly less affluent than the large districts, but their achievement is much better than in the large rural districts.

-- But what about TN and VA? (review transp. #2--ach all) In TN the large rural districts did better than the small, and in VA there wasn't much difference between the two groups.

-- Fourth transparency

-- Historical differences btn KY/WV and TN/VA: border states vs southern states, small black populations in KY/WV; race an issue in TN/VA

-- TN: (1) large rural districts have low poverty, less than average number of blacks, achievement very slightly above average. That is, they've got a number of SES advantages.

(2) small rural districts have fewer than average blacks, higher than average poverty, and lower than average achievement. These seem to be poor white districts. (Interestingly, achievement here is not so low as it is in TN's small urban districts, which have virtually the same SES characteristics.)

-- VA: (1) On closer inspection, the VA situation resembles the WV situation. Small rural districts seem to be doing a

comparatively good job in comparison with large rural districts.

(2) Note that the large rural districts have low poverty, fewer blacks than the average, and achievement below average.

(3) On the other hand, note that the small rural districts, with higher poverty and substantial black populations have achievement that is, if anything, higher than that in the large rural districts.

These data suggest that small rural school districts, in comparison to large rural school distrits, are doing a good job in three of the four AEL states. In particular, we see that small rural districts in WV have substantially higher achievement scores than the more affluent large rural districts. And in VA, the small rural districts serving poor black populations seem to do at least as well in promoting learning as the large rural districts, which serve a more affluent white population.

The big lesson in all this seems, however, to be just what Friedkin and Necochea point out in the California study: there is a relationship between the effects of size and socioeconomic context. Moreover, this context is very likely to differ from state to state, and we haven't mentioned governance structures, which complicate the picture in three of the AEL four states. In those states, both county and independent districts are allowed; and in Tennessee, furthermore, most county superintendencies are <u>elected</u> offices. Finally, some of the large rural districts in Kentucky and West Virginia are county districts located in the coal fields. It's interesting to speculate about what it would take for smaller organizational units (which are more

expensive) to improve education in those districts. I have the feeling small scale is only part of the picture.

Whenever I discuss such results, people seem a little baffled. Exactly what accounts for the findings that seem to favor small scale? For one thing, I think the answer lies in the idea of responsiveness. Responsiveness is not a quality that emerges spontaneously in large organizations. For example, the large industrial or business organizations whose economies of scale produce more widgets and cheaper widgets also make such organizations less responsive. That's Ok if responsiveness is not the key to the enterprise of making and selling widgets. The message of thoughtful teachers and administrators, however, has always been that (a) kids aren't widgets, and (b) schools need to be responsive if they are to be successful.

This line of discussion leads eventually to school finance, but first I want to consider the ways in which curriculum and instruction in rural schools can be responsive. I'd ask you, in the meantime, to remember that many rural schools suffer from the syndrome that David Tyack has called "the one-best-system." It's the illusion that science is capable of identifying a set of standard procedures whereby kids can, in effect, be treated like widgets. As a result, many rural schools labor under restraints that keep them from doing things that might otherwise come naturally to them.

Responsiveness has to do with "context": noting the relevance of where you're at to where you want to go. The first section of this talk dealt with where we might want to go. The act of exploiting the dimensions of context in the classroom, however, is the chief means through which education--wherever it is done well--demonstrates its responsiveness. Teachers need to link students' previous knowledge with new knowledge; students need to learn new

facts and ideas in the context of old facts and ideas. Small scale provides a better setting than large scale for taking advantage of context. The alienation that urban schools produce is probably a function of decontextualization, the delivery of knowledge that is meaningless to those who receive it, simply because it lacks a context.

Again, Wigginton and Keizer can give you plenty of examples of contextualized learning drawn from their experience in rural schools. Contextualizing education is not simply a matter of pandering to students' naive sense of "relevance," however. The first thing we need to know is why we want them to learn what we do (reading skills, arithmetic, Shakespeare, the history of Asia and Africa, or chemistry). We should know what we want from having already travelled part way along the road we want to open for our students. But we also need to know what landmarks the students are looking at as they begin their journey.

Good schooling aims to expand that naive sense of relevance, but it can do so only by treating with respect the place students are coming from. The disadvantage of the transportable one-best system is that it ignores where students are coming from. Good teachers overcome that disadvantage by reworking the materials and methods of instruction, by forming links with their students. This kind of teaching has something to do with art, I suppose, but there is a scientific basis to such art, as Nathaniel Gage puts it.

Wigginton tells a story about how his teaching became more responsive when he went "sanging" (hunting ginseng) with a local student--a student for whom he had been unable to "contextualize" the experience of school. It was apparently one of those experiences that provide scope for wisdom. Wigginton

began to understand that even alienated students already knew a lot--things that schools and teachers seldom take into account.

This wisdom--this sense of context--needs, of course, to be translated into practice. Unfortunately, the pervasive technology of the "one-best-system" is little concerned with contextualizing student learning. How could it be? Developing a new textbook series costs millions, and a development enterprise this big requires a big, unified market. We're not doing much to contextualize learning when we slavishly follow a textbook presentation.

Teacher centers and teacher networks (such as Wigginton's state Networks)--many of them in rural areas--offer one alternative. These programs give teachers the chance to develop instructional routines and materials that help <u>their</u> students make sense of the <u>particular</u> world <u>they</u> inhabit. In the future, such programs should get a much larger proportion of the financial support that we now, unwittingly, give to commercial publishers.

Another way of contextualizing learning has to do with creating a culture within each classroom, a culture that includes students in a common language and shared values that adhere to the subject of their studies. The movie <u>Stand and Deliver</u>, which I mentioned earlier, is the most accessible example I can think of. It's the story of a hard-nosed teacher who successfully takes a group of chicano kids through the calculus AP exam, to the arch skepticism of the Educational Testing Service (which administers the AP exams). The kids had to retake the exam, and, of course, did just as well at the second sitting as at the first.

Calculus is not actually a subject that is easy to contextualize. A great deal of nurture is necessary to contextualize any form of mathematics--

from arithmetic through calculus, both in relating it to the world at large and in making it accessible to every student.

I used to tell my math students that, when it came to learning, cheating was simply impossible. The reason I gave was that learning is inherently an act of sharing, and not just on the part of the teacher, but among everyone in the class. What's known as cheating is the attempt to deny that common purpose, to short-circuit the genuine sharing that must go on if any of us is to learn--ever. This struck my students as a new and appealing idea. When I did discover cheating, I let the punishment fit the crime: the offenders got to "share" the average of their two grades.

Context, then, looks both outward (to where the class is) and inward (to where the class needs to go). I choose the terms "inward" and "outward" carefully because of my view that education is self-development, and the point of learning is not to make more money but to understand oneself and the world better. This view is also consistent with the traditional progressive view of education as an unfolding of an intellectual potential that exists naturally inside all human beings.

Why shouldn't rural schools be the ones to teach the lessons of contextualization to the educational system as a whole? They have the advantages of small scale. They have the tradition of a culture that produces generalists. The people in them have a natural connection to the earth--the context that surrounds us all. They have the challenge of local contexts that have been ignored by the machinery of the one-best system. They have also begun to take up that challenge in nationally visible ways, as the work of Wigginton and his colleagues and Garrett Keizer suggests. The Regional Educational Laboratories' rural education programs have also made

contributions, as does the Clearinghouse on Rural Education and Small Schools, on a much smaller scale. There are also a host of other programs that work on behalf of rural education.

I'd like to end this section of the talk with a few remarks about technology. There is a great deal of hopefulness that technology--usually construed as hardware and software--will help solve the problems of curriculum and instruction in rural schools. Developing and applying technologies is exciting work, but if you agree that learning is an act of sharing knowledge, then you will see that technologies are just tools to the end. They can be applied wisely or foolishly. If for example, we have a distance education program that serves 400 students in 200 sites nationwide, we may have a solution of sorts, but we also have another problem: contextualization. It solves a problem for a few capable students, but it leaves the problem of how to nurture the development of greater numbers of capable (and potentially capable) students--a large problem in rural areas--untouched.

The cost of developing and delivering computer-based technologies and curricula may also be staggering, when compared to the cost of developing textbooks or using methods that are people-based rather than high-tech based. There is some legitimate controversy over the comparative cost-benefit ratio of computer-assisted-instruction versus techniques like peer tutoring and cooperative learning, with Henry Levin and Gail Meister at Stanford raising the strongest objections.

My fear is that over-reliance on distance education--and for that matter on computer-assisted-instruction generally--may be the next logical step in the refinement of the one-best system. There are a lot of reasons for the attractiveness of computer-based technologies, most of which boil down to the

fact that they offer immediate solutions to some problems and that they are comparatively efficient. Certainly we need to use those tools, but wisdom about their use is a matter of experience. And that experience can be costly.

A lot more needs to be done, of course. If we get bogged down in the idea that rural education is going to transform rural economies, or that technology will provide a "quick-fix" for rural schools, we will miss the point. But if we do our job well--by being thinkers and readers and by nurturing students' minds--then we will certainly transform students' lives. And if our students, as a result, develop the determination to make a contribution, then we will surely have a better world.

School finance. These remarks bring me to my third issue--rural school finance. For if a lot more needs to be done, it will require more financial support, not less. I'm not expert in school finance, and my remarks will not focus on the foundation formulas that will serve rural schools best in the current situation. The Clearinghouse has, however, recently published two monographs on the topic, and they deal with this question in great detail. Instead, I'd like to consider the notion of "efficiency" under which all such formulas arise.

American educators are a hard-working lot. They can do more than they are already doing. But they can't do more with less. They can't do it by doing what they already do faster, cheaper, or by volunteering for extra duties.

I don't believe they can do much better with new technologies, either, unless we radically transform the role of the teacher and differentiate teaching responsibilities still further. This sort of differentiation would perhaps distinguish between professional teachers and paraprofessional technologists. Teachers would manage the learning programs of many students, but the technologists would do most of the actual work with kids--or at least a large portion of it. This notion appeals to many of my colleagues, and if it were done with a view to responsiveness, it might be a good thing. But with the emphasis on using technology as a tool to achieve efficiency, I'm not particularly heartened by the vision that others find so attractive.

Part of my concern is with aims: as a profession, educators have not reached any consensus on aims above the level of basic skills. That's why I belabored the issue of the aims of rural education. I don't think that

educators can feed, clothe, and shelter the poor (though we make a truly valiant attempt in many rural communities). I don't think we have been very wise in undertaking a variety of special programs, which, though they are attractive and well-intentioned, we are not really capable of doing very well by ourselves: career education, affective education, substance abuse education, sex education, leadership training, and creativity training. This list--and my skeptical attitude toward educational technology--probably gives everyone here something to get mad at me about.

In fact, these objections may seem like a surprisingly conservative diatribe, considering how this talk has tried to interpret a progressive legacy. But at the same time I claim allegiance to that legacy, I believe that schools have an alarming history of assuming roles that are tangentially related to the nurture of students' learning.

Let's acknowledge that the factory school--the "one-best-system school"--does not really care for the whole child, claims to the contrary notwithstanding. How can it, when it is so concerned with specialization? Reassembling a whole from its entrenched and differentiated parts is not an appealing task.

For example, if we really expected schools to care for "the whole child," then we might as well do away with parents into the bargain. The simple fact is that schools have no business assuming this role (though, as the preceding discussion ought to have made clear, they <u>should</u> attend to where their students are coming from).

Of course we want kids to get good jobs, to be happy and productive, and not to succumb to "social diseases" (like AIDS and heroin addiction). But--as educators--we can't guarantee those things. We can and should help, to a

modest degree, as people who care for kids--but Michael Katz's warning keeps echoing in my ears. Let's not make attitudes the centerpiece of schooling.

We should, however, as a point of professional honor, aim to guarantee that every child will learn in school. We already make valiant attempts, though we fail to educate many students. Ample evidence suggests we could do a lot better than we are doing. We need better-funded schools mostly for that purpose and not for all the other purposes we might still imagine for schools. If we can agree that helping students learn is our primary role and concentrate on that, then we would ourselves reflect the kind of determination to make a contribution that we could expect of our students.

So what's the problem? Why do we not carry out that "primary role" as well as we might? What I want to do now is suggest to you the principal cause of our problem. It affects rural schools profoundly.

It concerns funding, but the money problem has a cause--a cause that I would characterize as "ideological"--stemming from the comparatively low priority we give education and the social services that support children's learning. And I fear that rural students rank low when we finally get around to addressing education.

I actually expect that more money will be available for schools in the coming years. I'm particularly heartened by what is happening behind the Iron Curtain, and even more particularly heartened by why it is happening. The Soviets seem to have discovered that they simply cannot continue to fund a military machine at the expense of their social services and consumer needs.

In truth, neither can we. We take care of consumer needs pretty well, but our social services--including education--need work, too. As the Red Bear

and Yellow Dragon go into hibernation, maybe we can find better things--like schools--to fund. I'm hopeful that we'll get the chance.

We need to agree, however, that institutions other than schools can better provide social support for families--both poor families and other families. Schools need to concentrate on helping students learn more and learn better. Educational aims, then, have implications for educational finance, just as they do for curriculum and instruction.

For the most part, rural schools are underfunded. I know that's not necessarily true in some sections of the West and Midwest, but even affluent farming and energy areas have undergone a good deal of stress in the last decade.

Now, part of the reason rural schools are underfunded concerns the economic base of rural areas, and part concerns the special features that characterize the operation of rural schools, but the main reason has, again, to do with that one-best-system model of schooling.

The classic study of the emergence of that model of schooling, however, is not Tyack's volume titled The One Best System, but Raymond Callahan's Education and the Cult of Efficiency, published in 1962. The title uses precisely the right words: "Efficiency" and "Cult."

Let's take "efficiency" first. Education--as it really happens, not specifically in its incarnation as schooling in America--is not inherently an efficient process. We all learn by taking two steps forward and (if we're lucky) only one step backward. We make wrong turns and engage in unproductive routines as part of our learning. Properly speaking, schooling is just the first step in becoming educated, but it is a critically important first step.

By imposing standards of efficiency on the process of education, we run the risk of crippling the process.

So what is "efficiency" and why is insistence upon efficiency so harmful? One team of researchers who found that small New Jersey districts were both efficient and effective, defined efficiency in terms of effectiveness in this way:

> Efficiency ... denotes <u>effectiveness without waste</u> or in consideration of scarce resources. Efficient districts bring about high levels of learning even though their students may be equally or even less socially and economically advantaged than students in other districts. (ref: Wlaberg & Fowler, pp. 5, 8).

This is a new twist on the school effectiveness formula, for sure. The interesting part of the twist is the emphasis on "scarce resources." In this particular study, the scarce resource--you got it--was money, specifically expenditures per pupil. The message was that small districts tend not only to do a better job, but a cheaper job. If you think New Jersey--a small, very urbanized state with over 600 districts--is typical of the rest of the nation, you're probably from Great Britain.

Combining the ideas of "effectiveness" and "efficiency" is, I think, a dangerous step. School psychologists know that there is a contest between efficiency and effectiveness. Stressing efficiency undercuts effectiveness, whereas stressing effectiveness inevitably causes efficiency to decline. Since the first decades of the century, schools have been held accountable, not to standards of student achievement, but to standards of efficiency.

The word "standards" is the key. The standards, in this case, are those of the "one-best system" as elaborated initially by the educational managers of the first decades of the century. Let me give you some of the flavor of their thinking, in case you doubt my point:

Frank Spaulding, a leading administrator in the early decades of the century, proclaimed that:

> 5.9 pupil recitations in Greek are of the same value as 23.8 pupil-recitations in French; that 12 pupil-recitations in science are equivalent to 19.2 pupil-recitations in English; and that it takes 41.7 pupil-recitations in vocal music to equal the value of 13.9 pupil-recitations in art. I know nothing about the absolute value of a recitation in Greek as compared with a recitation in French or in English. I am convinced, however, ... that when the obligations of the present year expire, we ought to purchase no more Greek instruction at the rate of 5.9 pupil-recitations for a dollar. The price must go down, or we shall invest in something else! (Callahan, 1962, p. 73)

The standards of efficiency, according to Tyack at least, are urban standards. That's true to a degree, since they were first applied to urban schools, as Callahan notes. More than urban, however, the standards of efficiency are <u>industrial</u> standards, imported wholesale shortly after their development in American industry. Those standards have affected everything from school finance and management, to curriculum and instruction (through behaviorism), to the aims of education. Our school enterprise is shot through with our devotion to efficiency.

The notion that you can define efficiency in terms of effectiveness is misleading, I believe, because of the peculiar nature of schools. Schools, like social security, are entitled institutions. Their existence is mandated by law. In contrast with industry or business, where the marketplace exerts some influence in the contest between efficiency and effectiveness, schools' continued existence is assured, no matter what.

I know this isn't how it appears to those who struggle with budgets on a daily basis. Nonetheless school districts weather all sorts of calamaties without going out of existence, though with occasional reorganization--which may include being acquired by another district. Again, those calamaties generally have more to do with efficiency than with effectiveness, as I suggested in my discussion of curriculum and instruction.

No, schools will continue to operate, however effective or ineffective they may be. (Sure, some states have begun to declare some districts "academically bankrupt." But how likely is it--really--that SEAs will do a good job running districts that are in bad shape? My regard for SEAs is generally low--but I apologize to the good people who may work for them. I'm also pretty sure that heavy-handed SEA efforts at reform will encounter a lot of resistance.)

In this historical context, efficiency is not, as Walberg and Fowler would have it, "effectiveness without waste" (as it would be in private industry), but keeping the school running smoothly for as little as possible. More important than effectiveness is making sure there are few complaints from special interest groups. Effectiveness is not, as they say, "the bottom line."

I offer an anecdote to illustrate the point. It comes from the fourth poorest county in the nation, where the population, by the way is over 97% white. There is no question that this district is not effective in terms of student learning. The dropout rate tops 60%; fewer than 10% of the kids go on to higher education; standardized achievement scores are low and get lower with time; time on task in the elementary schools is low; the teachers leave the buildings promptly at 3:00.

What's the hottest school debate in this community? It's the efficiency of operations in the district. As you might imagine, the argument really has very little to do with education. The county commissioner alleges that the superintendent has mismanaged the school budget, bringing a funding crisis upon county government. What's really happening here is municipal overburden, with the county having assumed increased responsibilities for social services. The 1980s brought two things to this community, as to many others throughout rural America: (1) federal retrenchment (especially cuts in block grants) and (2) retail flight (to the Wal-Mart in the neighboring county). The latter was important to this community because half the proceeds from the sales tax go to the schools there.

The battles that go on in state legislatures across the country aren't much different nor are they usually any better informed than in this supposedly "backward" community. The same unexamined assumptions are at work: the need to save money, the expedient goal of cutting taxes, and the need to maintain the appearance of providing services.

To give them their due, legislatures in economically hard-pressed rural states are usually clever enough to disguise cuts as improvements. Of course, the more dire the economic circumstances, the more clever must such dodges be.

In my state the words "improvement" and "efficiency" have recently been linked by a new administration. School districts have already been combined into county districts, however. That route to efficiency has already been taken, and now it's not enough. Now the state is trying to force the creation of multi-county districts. And we've seen a lot of articles in the local press about how big high schools really have to be if they are to be good. The governor is also a big fan of computers, and he believes the right hardware and software will help every child learn more efficiently--though the word he uses is "effectively." The governor has had the SEA conduct a study, and it sounds like the result is going to be one gigantic purchase order for the whole state. It all sounds too much like the "final solution" to me. In the meantime the education budget has been cut by 2% and the teachers' raises took effect this month rather than last September.

I've participated in meetings with representatives from the SEAs of Kentucky and West Virginia recently. West Virginia wants to make its small schools, particularly its small rural schools, larger. It's a move obviously driven by efficiency, especially in light of the data presented above, which suggest that those schools are, in fact, comparatively effective. It certainly looks like that degree of effectiveness will be sacrificed in the name of efficiency.

The Kentucky governor is holding fast to his promise of no new taxes, and those who want new taxes blame rural legislators. They quite mistakenly believe the rural districts exert less tax effort than the urban districts--because they derive "effort," not by comparing tax revenues to income, but to property wealth. Rural coal counties have substantial untaxed property

wealth--the vast majority of it held by absentee landowners. That's a state problem, not a local problem.

Although in both Kentucky and West Virginia the school systems have been declared "unconsititutional" in toto, the SEA people, if candid, would tell you that nothing will change for kids and teachers in the classroom until the governors and legislatures provide funding increases. West Virginia has repeatedly failed to address this problem, even though it paid $30 million for a property tax reappraisal--which it has subsequently refused to implement.

In all this wrangling, the standards of assessing the efficiency of rural schools are the same standards applied to urban and suburban schools. Yet we know that rural schools are more expensive per unit (teacher or student) to operate than other schools. We also know that there is a natural limit to how large you can make a school in a given rural locale, which means that many traditional "economies of scale" are out of reach in rural schools. I'm thinking here primarily of instructional economies--specialized classes and teachers--rather than purchasing economies.

My argument, however, is not principally that it is inappropriate to apply such standards to rural schools. Obviously, applying such standards is inappropriate, but the real problem lies with our devotion to efficiency, a devotion occasioned by our need to maintain an imperial military force. If we regularly spent 25% to 50% more on schooling, we could more nearly approach fiscal equity--if the additional resources went to the right places--particularly central-city and rural districts. To get such a scheme started might take 5 or 6 years of massive increases to the most needy districts--preceded, I would caution, by two years of local planning.

It should be equally obvious that these same communities--and probably others as well--need better healthcare, daycare, and the kind of economic planning that creates good jobs and stable jobs. These functions support what the school is able to accomplish, and they must be seen as an important ally of education. Though schools can and should be partners in such activities, they should not assume leadership.

It's common knowledge that elementary and secondary schools in Western Europe and Japan promote learning among their students somewhat better than we do among ours. The studies that confirm that view as fact are used as an incentive for the reform of American education. But the reform of education is never, well hardly ever, linked to other reforms in our society. (By the way, studies of Japanese higher education are not so rosy: they suggest that Japanese students finish up their higher education about even with American students.)

But take a look at what's different in those societies. First, they have social services of the sort that would be helpful to American educators--daycare, family support allowances, government mandated maternity and paternity leave, excellent systems of financial aid for higher education, and so forth. Second--and this point may be the source of funding for those social services--they have military budgets that are quite meager by comparison with our own.

Military expenditures are what one expert on economic development has called "transactions of decline." They eat up incredible resources and provide profits to military contractors, but they do not stimulate economic development. Expensive weapons are stockpiled--they don't become part of a cycle of growth.

We've seen, then, that the national interest creates at least two priorities that don't seem to serve rural education very well: restoring business competitiveness internationally and supporting unproductive military spending. With these priorities in place, efficiency in the operation of schools and social services does become, as Callahan claimed, a "cult." We all become victims of that cult, because the idea of efficiency is the condition under which most of our debates about schooling--aims, curriculum, instruction, and school finance--are carried out.

Stuck with the norms of efficiency, we labor in vain to create effective schools. It's a bind, but one might also argue that truly "efficient" schooling does not qualify as education. Truly efficient schooling would devote its resources only to the development of specific skills that could be applied directly to specific jobs. The problem is that schooling takes at least 16 or 20 years, and the kind of predictions necessary for such efficiency are <u>impossible</u> to make. At the apparent start of the computer revolution, we can all appreciate that the workaday world will look very different in the year 2010. In the end, however, this kind of efficiency, even if it were successful in schools, would result in mere training.

If "efficiency" is a code word for "cheap," then we're in for trouble. It's difficult to believe that <u>cheaper</u> schooling will produce better educated students. Even the technological innovations that we hope will produce both savings and better learning over the long term will require dramatic changes in the design and operation of schools. Such changes are, in themselves, not cheap. Learning to use new tools takes a great deal of training. And if you throw in ideas like site-based management, professionalizing teaching by upgrading the role of the teacher, and building stronger links to the

community, it becomes increasingly apparent that we're talking about more money for education.

If the culture as a whole does not value education for the right reasons, or if it places impediments in the way, then education, properly understood (that is, as something different from training), will be an even less efficient process. I've tried to argue that we do not value education for the right reasons, and the literature on school dropouts--especially work that suggests that "pushout" is a term applicable to the majority of dropouts--is ample evidence that our devotion to efficiency does put impediments in the way.

Conclusion: An international comparison. Even though it appears to cost money, learning is not, I would argue, an investment like the purchase of stocks or equipment. Individuals profit from successful learning in many ways, and they enact their own futures. In fact, it is quite likely that the so-called non-market effects of education dwarf (in monetary value!) the financial returns to education. I'd argue that is so because education's chief value does not reside in the contribution it makes to the economy, but in the contribution it makes to the quality of our lives. In short, to a common culture.

I've gotten some insight into the problem lately from a Chinese colleague who is fascinated by the cultural differences between China and America that shape how we do education in this country.

His basic idea is that the way people view education grows out of themes that run through the entire culture. My Chinese colleague characterizes America as an "efficient" culture. According to him, we are efficient in how we work, in how we cook and keep house, and--naturally enough--in the way we raise our children. He is concerned with the fact that American schools do not seem to be doing the job they might. But he says the source of the problem does not seem to lie in the schools themselves, which compare very favorably to the schools in China.

According to him, we do not appreciate the meaning of education. In America, he says, learning is the route to something else--a better job, more money, a happier life. That's not how it is in China. Education, says my colleague, plays a role similar to the role played by religion in this country. People have a faith in learning, and educators--like the clergy in

this country--have a special relationship to that faith. Education embodies hope for the future as well as devotion to the community and the culture.

Perhaps our devotion to efficiency and our belief that education is a practical investment are the cultural themes that keep us--as a culture--from making the changes in our schools that we'd like to make. If we accepted the inherent inefficiencies of learning and understood that profit is not the chief justification for learning, maybe we could move forward. It's interesting to me that--as complex in details and as wide in scope as these issues are--small, rural schools are a good vantage from which to view the issues.